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THE RELATIONSHIP BETWEEN MIGRATION AND THE PROVINCIAL DIVORCE RATE IN CANADA, 1971 AND 1978: A REASSESSMENT

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ABSTRACT

Sustained provincial differences in the rate of divorce have been observed in Canada for some time, but there exist few empirical attempts at providing a systematic analysis of the relevance of region and migration to divorce. This study examines the interrelationship between these variables for two points in time, 1971 and 1978. The results concerning migration are consistent with the hypothesis that regions characterized by high rates of population mobility have high divorce rates, while regions with low migration rates experience relatively low rates of family dissolution. It is shown that interprovincial migration, as a proxy for rapid social change, is directly related to divorce. The pattern of regional main effects on divorce is examined and the results are indicative to suggest that some regions may possess unique cultural orientations that may facilitate or discourage divorce. Implications and suggestions for future study are discussed.

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Introduction

The rise in the incidence of divorce in Canada during the last decade has gained the attention of the public at large including journalists, academics and lay people alike. The magnitude of this phenomenon is reflected in the findings of Davids (1980) who recorded a 73 percent increase in the number of persons in the ever divorced category of marital status between 1971 and 1976. With the government's introduction of more liberal laws concerning access to divorce in 1968 (Pike, 1975; Veitch, 1979; Stetson, 1975; Canada, House of Commons, 1967), and the gradual diffusion of values accepting the legal dissolvement of marriage, the idea of divorce has permeated virtually every sector of the Canadian society (McKie et al., 1983). Over the ten year interval, 1969 to 1979, the absolute number of divorces granted fell just short of the half million mark.

As an indication of this widespread diffusion of the acceptance of divorce in Canada's population, Table 1 has been included; it shows the probability of divorce among the currently married for the periods 1970-72 and 1977-79.[1] The risk of divorce in Canada was .22 in 1971 (the midyear of 1970-72); by 1978, the index of family breakup increased to .35. Recent assessments by other analysts (Adams and Nagnur, 1981; McKie et al., 1983) suggest that the present level is a 40 percent risk of ever divorcing for the currently married. Under the prevailing conditions almost half of all marriages in Canada can be expected to end in divorce. This, however, is below the rate calculated by Preston (1975)

TABLE 1. PROBABILITY OF DIVORCE AMONG THE CURRENTLY MARRIED, CANADA AND PROVINCES, 1970-72 AND 1977-79.

	Probability of Divorce	
PROVINCE	1970-72	1977-79
CANADA	.2247	.3465
NEWFOUNDLAND	.0493	.1158
PRINCE EDWARD ISLAND	.0923	.1653
NOVA SCOTIA	.1472	.3225
NEW BRUNSWICK	.0966	.2095
QUEBEC	.1486	.3355
ONTARIO	.2670	.3491
MANITOBA	.1896	.2636
SASKATCHEWAN	.1229	.2030
ALBERTA	.3437	.4349
BRITISH COLUMBIA	.4040	.5043
YUKON	.3990	.3975
NORTH WEST TERRITORIES	.1680	.3431

for the United States, which is estimated to be 44 percent. Every province in Canada has shared in this trend: Newfoundland increased its probability from .05 to .12 over just an eight year period; Prince Edward Island's level changed from .09 to .17; Nova Scotia and New Brunswick, the two remaining provinces of the Atlantic region, also witnessed significant gains, but the former constitutes an outstanding case due to its relatively high probability in the latter period. In 1971, the likelihood of family dissolution in Nova Scotia was .15, and in 1978 this changed to .32 -- a level which is approximately three times higher that of Newfoundland. As one focuses away from the Atlantic provinces and examines the rest of Canada a general increment in the probabilities is evident, with some provinces having a greater contribution to this trend than others. Quebec and Ontario, although quite dissimilar in their levels during 1971, were almost equal in 1978 and approximated the national average. Manitoba and Saskatchewan have maintained probabilities below the national average, while the Western Provinces of Alberta, British Columbia, and Yukon, have possessed the highest indexes of divorce relative to the rest of the Nation. In British Columbia, the risk of marital breakup was 40 percent in 1971, and it was 50 percent in 1978, while in Alberta, the rate increased from 34 to 43 percent over the same time interval. These variations across geographic areas suggest that significant forces may act to promote relatively high rates of divorce in some regions (e.g. the West) and relatively low rates in other localities (e.g. the Atlantic region).

This regional phenomenon has not received systematic attention even though there are a number of studies and observations (e.g., Pike, 1975) which provide useful insights into a potential explanation for the relevance of region in accounting for differences in the rate of divorce across Canada. A hypothesis that has gained some empirical support is that the divorce rate is highest in

highest in areas that have high rates of population mobility (Fenelon, 1971; Makabe, 1980; Wilkinson et al., 1983; Glenn and Supancic, 1984). This study uses vital statistics and census data for Canada to explore the causal linkages between migration and divorce, and to ascertain the relevance of region per se in accounting for the pattern of divorce variation in Canada for the periods 1971 and 1978. Regions vary in their social and economic levels of development and in their traditions concerning marriage and the family, and hence in their general acceptance of divorce. The underlying forces of a region's experience may be rooted in social, economic, demographic and cultural factors (Pike, 1975). The exploration of such sources of regional differences in divorce will contribute to a better awareness of the phenomenon in general and to further the development of sociological theory concerning marriage and the family in advanced societies.

Review of the Literature: Divorce, Region and Migration

The available literature in this area of study concerns itself primarily with establishing an association between overall population mobility (population turnover) and divorce at either the state, county, or provincial levels (e.g., Wilkinson et al., 1983; Cannon and Gingles, 1956; Makabe, 1980). The studies are mostly ecological in nature and assume that population turnover is an index of rapid social change in a given locality. The assumption is that areas undergoing rapid socizl change and industrialization attract migrants from other provinces while at the same time experience high levels of intraprovince mobility, as the inhabitants relocate in search of better opportunities. A fact that is often neglected in this context is that such places tend to produce a significant counterstream migration flow (outmigration) in addition to the inflow. This principle is well supported by the literature in the demography of migration (Bogue, 1969; Thomas, 1931; Lee, 1966; Goldscheider, 1971).

Associated with such places are high levels of social disorganization and divorce.

The rationale underlying the use of population mobility as a predictor of family breakup is grounded in the social disorganization school of sociology (Durkheim 1951; Merton, 1964; Wirth, 1938; Fischer, 1978; 1975). This perspective assumes that rapid social change weakens normative consensus among members of the community with regard to significant aspects of life. Durkheim (1951) used the term anomie to describe the outcome of rapid change in society; anomie occurs when society is unable to place normative controls on individuals because the norms ascribed to traditionally erode in the course of rapid change. The more rapid the change, the greater the weakening of traditional values about familism, and the greater the emphasis on the development of an ideology of individualism as the guiding ethos in life. A significant consequence of this process is higher rates of marital instability and divorce (Shorter, 1975). Although not explicit in his link to this school of sociological thought, Fenelon (1971:322) poses support for the main proposition inherent in the social disorganization school when he asserts that social sanctions concerning divorce vary by the degree of social integration in a given system: "The greater the population change in the form of new members entering the system the less likely a full realization of social integration will be achieved. In these systems, therefore, as compared to others where more complete integration is in evidence, there will be a weaker enforcement of norms and less social costs connected to divorce."

This kind of explanation implies: (1) the migration flow is greatest at places where there is increasing economic expansion and economic development; (2) the greater the economic development level, the greater the degree of erosion of norms that support and emphasize community and familism as opposed to

individualism; (3) with increasing individualism, the decision to dissolve a marriage is grounded less in social sanction but more on personal considerations and rationality (Fishbein, 1972). In Farber's (1973) terms such places may be said to be characterized more by a model of "permanent availability" than an "orderly replacement" context.

If high migration rates are correlated with increasing levels of family breakup, it is also possible that region is causally associated with divorce and migration as well. Evidence presented by Glenn and Supancic (1984) suggests that the regional pattern of divorce in the United States may be partly due to the selectivity of migrants to the "divorce belt" areas, and partly due to the social conditions of the receiving locality itself. It may be that persons who migrate are predisposed to greater risk of divorce thus contributing to their place of destination's increasing divorce rate. However, selectivity alone cannot explain the very high rates observed for the "divorce belt" region of the United States: "The higher propensity to marital dissolution in the West and South West results to a large extent from the higher rates of residential mobility there and from a consequent lower level of social integration in such social groupings as extended families, ethnic neighborhoods and church congregations -- groups that often exercise the kind of social controls that tend to keep marriages intact" (Glenn and Supancic, 1984:569). This view is also consistent with the anomie-disorganization perspective. Like Durkheim, Merton (1964) refers to anomie as a property of a social system; the society that fails to provide the normative limits that were once present prior to massive social change typically experiences some level of anomie and the social controls that tend to keep marriage intact are weakened.

It may be that certain regional cultures are more resistant and more insulated from the erosive forces of rapid social change. In this way region

may have an independent explanatory role in the context of the ecological study of divorce. Although Pang and Hanson (1968) referred to this possibility in their assessment of factors that might account for the East-West pattern of state variation in divorce in the United States, no one has attempted to measure and assess the relevance of this factor. Authors have agreed, however, that some localities have a "frontier atmosphere" conducive to divorce (Makabe, 1980; Fenelon, 1971; Leslie, 1982; Pang and Hanson, 1968). The "frontier effect" is another variation on the anomie-disorganization theme discussed earlier: Places with high population turnover have higher rates of social disorganization which make the social costs associated with divorce lower than places not characterized by high population turnover. Such places are likely to experience some degrees of disruption in their social integration of communities because both migrant and the indigenous sectors find a social climate facilitating family breakup. If this is true, we should find a region effect acting independently of a migration influence on divorce. More traditional regions with lower levels of industrialization would presumably possess stronger normative orientations against family dissolution. Pang and Hanson (1968:229) asserted that subculture is an important determinant of state variations in divorce: "Special subcultures... where... divorces... are highly publicized may undoubtedly contribute to the increasing attitude of the people to think favorably of divorce which doubtless helps to promote and increase divorce." The converse principle ought to apply in places where divorce has been traditionally discouraged.

Studies in Canada show that rural areas, which tend to be more traditional than urban places, demonstrate relatively low rates of family disruption and also above average fertility levels, thus suggesting strong normative orientations toward familism (Peters, 1976; 1979; Trovato and Grindstaff, 1980;

Trovato and Halli, 1983; McKie et al., 1983). It has been suggested that the Atlantic region in particular, may have a unique regional culture that is still traditional in most respects in relation to the rest of the nation, and that strong familistic norms prevail (Trovato and Halli, 1983). The common observation of this region's below average probability of legal separation may underlie evidence of persistant normative features that are grounded in sociohistorical forces which may act to discourage widespread acceptibility of divorce.

Provincial or state variations in family dissolution have been found to be causally related to factors other than population turnover (Makabe, 1980; Pang and Hanson, 1968; Leslie, 1982; Wilkinson et al., 1983; Cannon and Gingles, 1956; Jacobson, 1959; Stetson and Wright, 1975; Fenelon, 1971; Glenn and Supancic, 1984; Ambert, 1980; Sweet, 1977; Carter and Glick, 1970). A systematic study of the relationship between migration, region and divorce, requires that other relevant sources of variation be taken into account as well. In this study, the following variables will be used as controls: age, sex, average family income; percent urban; percent in the labor force; percent university educated, and percent Roman Catholic. All of these measures have been shown to bear important relationships with divorce.

Following previous research, the migration effect is measured by the interprovince inmigration rate as a proxy for rapid social change and social disorganization. However, the migrants themselves are assumed to have a partial contribution to the divorce rate of the receiving province. This is the orientation inherent in the study of Glenn and Supancic (1984). They used data from seven United States national surveys, conducted between 1970 and 1980, to explain the mid 1970's average proportion of the population ever divorced on the basis of social and demographic factors in the United States. Using time since

first marriage as a control variable, it was found that socioeconomic factors had a minimal influence on divorce, while race and religious attendance were found to be important explanatory variables. A regional effect was detected: the West, South Central, Mountain and Pacific regions form a high "divorce belt". Their explanation of this was given in terms of social disorganization. They argued, however, that the immigrants themselves had a minor contribution to the region's high divorce levels.

A fact which has not received attention in such studies is that regions that exhibit typically low rates of divorce tend to posses a history of low immigration, or negative net migration rates. The Atlantic region of Canada is an example of this, it has shown a historical experience of net loss through migration, and its divorce rate has tended to be below the national average. This fact is also true of provinces such as Manitoba and Saskatchewan (Stone, 1969; George, 1971). These regions tend to be less developed than the more central areas of Canada. In fact, they may be regarded as constituting a "hinterland" to the "metropolis" (Trovato and Halli, 1983). Less developed areas are known to be more traditional and hence more likely to hold on to strong norms that encourage familism and at the same time discourage the widespread adoption of values that encourage or facilitate divorce (Lowe and Peek, 1975). High rates of outmigration may be an indication of regional poverty and regional underdevelopment. In such contexts a culture of familism usually develops because generally, societies that are relatively deprived tend to adopt norms of familism as a survival strategy (Parsons, 1968). This is evidenced in the patterns of variation associated with family size: fertility is highest in the poorer areas of the world; part (but not all), of the underlying mechanisms for this effect pertains to norms of family continuity and adaptation. Such areas are likely to demonstrate a strong resistance to the

widespread acceptance of values conducive to divorce. This may prove to be an important aspect of the regional divorce phenomenon, for not only is it adequate to explain why certain localities have above average rates, but it is equally important to explore why some areas persist to demonstrate relatively low levels of family dissolution in a modern society such as Canada.

Concerning migration, most researchers have tended to utilize an overall index of population mobility to evaluate its impact on divorce across regions. Makabe (1980) employed a measure which mixes movers within the same province with immigrants from other provinces during the period 1966-71. Fenelon (1971:322) confused "in-migration" with the actual measure he used. He stated initially that "divorce rates are more likely to be high in states having high in-migration rates than in states having low in-migration rates". However, in his analysis a combined index involving intra and interstate mobility was introduced. These procedures fail to separate the relative contribution of intraprovince and interprovince (or state) migration on divorce. It may be that one component is irrelevant or that perhaps the two have opposing associations with family breakup. Moreover, one may have a stronger impact than the other. For example, Wilkinson et al., (1983) found that new immigration (not overall mobility) had a negligible effect on divorce in the predominantly rural, more traditional countries of the old West region. Perhaps intracounty mobility would have derived different results. At the very least, it is important to determine how varying measures of migration might be associated with divorce.

A neglected component of migration in this research tradition is international immigration. In Canada, this rate is not uniform; certain provinces such as Ontario, British Columbia and Quebec share a disproportionate advantage in attracting foreigners, while the Atlantic region and remaining provinces are not generally known as destination areas for the foreign born. In

general, the higher the international inmigration rate to a given locality, the higher the social economic development; and the more developed the area, the greater the rate of social change, and consequently, one would expect, the higher the degree of social disorganization and anomie. These interrelationships usually translate into a relatively high divorce rate for such areas. A preliminary step in the execution of this analysis is to test whether three measures, interprovincial, intraprovincial, and international migration rates can be treated independently. If their intercorrelations are high, we cannot assume independence, and only one measure will suffice as an index of rapid social change.

A further aspect of the relationship between region, migration and divorce left unexplored in most studies is the notion that the divorce rate may be a determinant as well as a consequence of population mobility. Divorce may be directly related to in and outmigration from a given locality. If this can be demonstrated to hold true empirically, we will then have provided some indirect support for a selection effect of migration on divorce (Glenn and Supancic, 1984). That is, persons who divorce in one locality, and move to an adoptive area, may actually contribute to inflating the proportion divorced in the receiving population. If in large numbers, they may have profound influences on the social and demographic contexts of the receiving region (Goldscheider, 1971).

Hypotheses, Data and Methods

The literature review suggests three key hypotheses: 1) the migration effect; 2) the regional effect; and 3) the social demographic explanation of divorce. The migration effect predicts that places with high rates of population mobility have relatively high divorce rates. Migration in this context represents an index of rapid social change, thus reflecting a relaxation

of social sanctions against divorce along with the disruptive influence of the migration process itself. This was referred to as the social disorganization - anomie thesis. The regional effect posits that region has an independent effect on divorce even after relevant social demographic controls have been taken into account. It was said that region may reflect the influence of persisting traditions that mitigate against family dissolution. The social demographic hypothesis predicts that regional divorce variations are a function of differences in compositional variables such as income, education, labor force participation and level of urbanization. Simultaneous tests of these three predictions for Canada's main regions will be executed for 1971 and 1978.

The dependent variable is the provincial divorce rate per 1000 married population of same age and sex. Appendix 1 displays these data. The total number of cases within each period is 192, as the rates are broken down by age (eight categories) and sex (2 categories) for the 12 provinces in Canada. Using this kind of data structure, one avoids basing results on a limited number of cases (had we relied on province alone as the breakdown variable, the number of cases within each period would have been 12 (see Makabe, 1980)).

Social demographic variables were appended to the data in Appendix 1. The variables percent university educated, percent urban, percent Roman Catholic, percent in full-time labor force, and average income (for 1971 only), were taken from available Public Use Census data sets and official census publications, and were appropriately broken down by the three defining variables, age, sex and province.[2] The three measures of migration were also taken from the same data sources. Intraprovince mobility refers to the proportion of people residing in a given province during the time of the census that stated a place of residence other than their current one five years previously, but the residence was in the same province. The interprovince migration rate refers to the proportion of

persons in a given province during the time of the census that stated they were living in a different province five years previously. The international migration rate pertains to the proportion of foreigners in a given province, who were residents of a country other than Canada between the time of the census and five years earlier.

For the 1978 divorce rates, the 1976 census data is assumed to provide a fair account of the situation concerning the various variables used. Further, it is assumed that no significant change in the levels of such variables occurred in the two year gap between 1976 and 1978.

Findings and Interpretations

Before a multivariate analysis is undertaken, it is important to consider the possibility that the three migration components may in actuality reflect an underlying dimension of the same factor. To ascertain this possibility, a factor analysis was computed. It was determined that all three measures do indeed reflect one common underlying factor, which is interpreted to be rapid social change. Therefore, for the remainder of this analysis, the interprovincial inmigration rate is employed as a proxy for the effect of rapid social change.

The analysis is executed in several steps. Initially, we will use a Multiple Classification Analysis (Andrews et al., 1973) to ascertain whether we are justified in treating province as a basis for constructing regional independent variables in subsequent multiple regression analyses. Table 2 shows the results of a stepwise MCA analysis: At each step, a further block of variables is added until all variables are in the equation; this allows for the detection of change in the adjusted average divorce rate once groups of variables are introduced to the equation sequentially. Although there are a series of changes in Table 2, the overall pattern suggests that the initial

differences in divorce rates among the provinces persist and actually tend to widen when all the variables have been added to the equation. The differences in Table 2 suggest that regional variations in divorce persist as indicated at the onset of this study in connection with Table 1. Based on this fact, it was decided to code six main divorce regions in Canada, with the Atlantic region as a whole as the comparison region: Quebec, Ontario, Manitoba-Saskatchewan, Alberta, British Columbia, and Yukon-Northwest Territories constitute the remaining regions. This decision is based on the fact that the data arrange themselves on an east-to-west pattern; that is, the lowest rates tend to be in the eastern provinces while the highest rates are generally in the west; the remaining provinces fall in an intermediate position along this continuum.

Table 3 shows the significance of change in the variance explained in the dependent variable due to the addition of social demographic, migration and region components in a hierarchical regression model. For 1971, social demographic variables explain approximately 60 percent of the variance, while migration and region contribute 6 and 13 percent, respectively, to the overall R^2. In 1978, social demographic and migration components contributed 55 and 15 percent, respectively, to the overall explained variance in family breakup. The regional component contributes an increment of 10 percent. It seems that the relevance of migration in accounting for provincial differences in divorce rates in Canada has actually increased over time. This is a finding which complements the results of Makabe (1980), who showed that in 1971, migration's contribution to explaining provincial differences in divorce was greater than a host of other social demographic variables. However, the present analysis adds a further dimension by demonstrating that region is an important variable as well.

TABLE 2. MULTIPLE CLASSIFICATION ANALYSES FOR THE PROVINCIAL DIVORCE RATE IN CANADA, 1971 AND 1978

PERIOD AND PROVINCE	N	AGE SEX	AGE, SEX IM	AGE, SEX, IM, URBAN, LFORCE, UNIVED, RC, FAMINC*
1971 ($\bar{X}$=5.66)				
Newfoundland	16	1.45	1.94	2.56
P.E.I.	16	3.33	4.35	3.91
Nova Scotia	16	3.99	4.52	4.79
New Brunswick	16	3.56	3.98	2.88
Quebec	16	4.14	4.15	4.29
Ontario	16	6.89	4.50	4.28
Manitoba	16	6.24	6.60	6.93
Saskatchewan	16	4.45	4.99	6.07
Alberta	16	10.58	9.58	10.47
British Columbia	16	10.01	8.66	9.46
Yukon	16	9.65	10.24	11.43
N.W.T.	16	3.64	4.42	5.44
1978 ($\bar{X}$=9.52)				
Newfoundland	16	3.70	4.16	6.03
P.E.I.	16	5.25	6.44	7.94
Nova Scotia	16	12.04	12.62	14.00
New Brunswick	16	7.25	7.88	9.03
Quebec	16	10.02	9.43	10.00
Ontario	16	10.63	9.49	6.51
Manitoba	16	9.42	9.93	9.21
Saskatchewan	16	7.41	8.08	9.16
Alberta	16	13.98	11.52	11.24
British Columbia	16	14.51	12.71	11.56
Yukon	16	11.92	12.95	10.70
N.W.T.	16	8.08	9.02	8.87

NOTE: IM is the interprovincial migration rate per 100 population.

N = The number of age-sex groupings for each province (see Appendix 1).

*Family income is not included in the 1978 equation.

TABLE 3. SIGNIFICANCE OF R^2 CHANGE FOR THE HIERARCHICAL REGRESSION ANALYSIS INVOLVING SOCIAL DEMOGRAPHIC, MIGRATION AND PROVINCE COMPONENTS OF DIVORCE IN CANADA, 1971 and 1978

	1971				1978			
COMPONENT	Multiple R	R^2	R^2 Change	F	Multiple R	R^2	R^2 Change	F
Social Demographic[a]	.773	.597	----	38.96*	.742	.551	----	37.86*
Migration[b]	.813	.660	.063	11.28*	.837	.700	.149	30.12*
Region[c]	.890	.793	.132	18.56*	.895	.802	.102	15.06*
		192				192		

* = P<.01
** = P<.05

NOTE: The following formula is used in the hierarchical regression analysis which tests the significance of the change in R^2 due to the addition of variables to the restricted model sequentially until the full model is satisfied.

$$F_3 = \frac{R^2y(1,2,3) - R^2y(1,2)/ky(1,2,3) - Ky(1,2)}{1 - R^2y(1,2,3)/N - K - 1}$$

Where: F_3 = F-ratio due to the addition of a third variable to the restricted model;

K = The number of variables in the equation

N = The number of cases in the analysis

a The social demographic variables are: Age, Sex, % University Educated, % in the Labor Force, % Urban, % Roman catholic, Average Family Income.

b The Migration Variable is the Interprovincial Migration Rate per 100.

c The Region component involves six dummy variables: Quebec, Ontario, Manitoba-Saskatchewan, Alberta, British Columbia, Yukon-Northwest Territories; the comparison region is the Atlantic Region which includes the four provinces of Newfoundland, Prince Edward Island, New Brunswick and Nova Scotia.

A subsequent step of the investigation involved a multiple regression analysis of the criterion variable regressed on the independent variables mentioned earlier, along with the interprovincial migration rate and the six regions simultaneously. Table 4 displays the means and standard deviations for all the variables while Tables 5, 6, and 7 show the regression results for 1971 and 1978 respectively.

Of the social demographic variables, in the 1971 equation, age, sex, percent urban, percent university educated, and percent in the labor force are all statistically significant, while average family income and percent Catholic fail to produce relevant effects on divorce. Sex and labor force participation exert the strongest impacts on the divorce rate. The negative sign for sex suggests that men have lower risks of divorce than women; this may be a reflection of the fact that even though there is an equal number of divorces for both sexes the denominators for the sex specific rates usually differ. Age is found to be positively related to the divorce rate: At the bivariate level of analysis age has been observed to follow a curvilinear association with the divorce rate (Basavarajappa, 1978); however, the partial relationship is positive. The effect of labor force participation conforms to the general notion that economic independence allows persons the freedom and the material means to seek the legal dissolvement of an unrewarding marital union through divorce. The positive urban effect is not surprising as divorce is generally highest in urban areas where the opportunities for contacts with others, who may serve as potential alternatives to the existing marital partner, are found in large numbers. The urban environment facilitates divorce through the sheer number of human contacts that persons are exposed to in their everyday interactions.

TABLE 4. MEANS AND STANDARD DEVIATIONS FOR THE VARIABLES IN THE ANALYSIS OF DIVORCE IN CANADA, 1971 and 1978

VARIABLES	1971 X	1971 S.D.	1978 X	1978 S.D.
Divorce Rate	5.569	4.167	9.517	6.006
Age	4.500	1.500	4.500	1.500
Sex	.500	.501	.500	.501
% University Education	9.644	6.614	9.408	4.856
% Urban	64.375	13.502	65.000	12.894
% Labor Force	58.308	24.331	60.519	21.529
% Roman Catholic	36.090	18.211	40.887	19.784
X Family Income	3426.573	2599.910	-----	-----
Intraprovincial Mobility Rate	11.074	6.574	12.405	7.246
Interprovince Migration Rate	5.017	5.259	4.900	3.932
International Migration Rate	2.930	3.321	2.738	2.520
MIG 12	8.046	5.286	8.652	5.213
MIG 23	3.974	4.103	3.819	3.034
MIG 123	6.341	4.488	10.021	6.194
Outmigration Rate	6.111	5.461	7.247	9.799
Quebec	.083	.277	.083	.277
Ontario	.083	.277	.083	.277
Manitoba-Saskatchewan	.167	.374	.167	.374
Alberta	.083	.277	.083	.277
British Columbia	.083	.277	.083	.277
Yukon-Northwest Territories	.167	.374	.167	.374

---- not included due to lack of data.

NOTE: - Age is coded as: 1=15-19; 2=20-24; 3=25-29; 4=30-34; 5=35-39; 6=40-44; 7=45-49; 8=50+.
- Sex is a dummy variable: 1 = male; 0 = female.
- The Intraprovince Mobility Rate refers to the percentage of people that changed residence within a given province during the five year census periods, 1966-71 and 1971-76, respectively. The Interprovince Inmigration Rate refers to the number of immigrants from other provinces entering a given province, divided by the census population of the receiving province, at the time of the census. The same interpretation applies for the International Migration Rate, only that it refers to incoming foreigners to a given province.
- The Regions are all dummy coded; Atlantic Region is the reference region.
- The Divorce Rate refers to the average number of divorces over a three year period, divided by the number of married people in the central year, multiplied by 1000. The Rates were broken down by Age and Sex.
- MIG 12 = Average of intraprovince and interprovincial migration rates; MIG 23 and MIG 123 have corresponding interpretations.

As was hypothesized earlier, the effect of interprovincial migration serves to raise the divorce rate in the receiving regions. The interprovincial inmigration rate reflects the construct of rapid social change which leads to social disorganization. Furthermore, interprovince inmigration is also a reflection of the disruptive effects of relocation for the migrants themselves. Unfortunately, it is not possible in this case, to untangle these two aspects of the problem. For the time being, this remains a quest for future study.

Of the six regions in the analysis in 1971, Quebec is not significantly different than the Atlantic region in terms of its effect on divorce when all other variables are taken into account. All the other regions, however, demonstrate significant main effects on divorce vis-a-vis the Atlantic locality. Ontario demonstrates a negative impact, while the remaining areas exhert positive influences on the dependent variable. The Ontario effect may not be as surprising as it seems when one considers the ethnic diversity of the province and its large proportion of foreign-born population. Perhaps this effect underlies the influence of ethnic heterogeneity which is generally associated with lower divorce rates (Basavarajappa, 1978; Cannon and Gingles, 1956; Fenelon, 1971). The overall indication of the regional effects is that aspects of regional characteristics prevail which contribute to divorce differentials in Canada. Sources for this effect were discussed earlier in connection with regional culture.

Table 6 shows the regression analysis corresponding to the provincial divorce rate in 1978. The results are not totally consistent with the 1971 findings and in some cases, are quite unexpected. Although the social demographic and migration effects are similar to those of 1971, all regions,

TABLE 5. MULTIPLE STEPWISE REGRESSION ANALYSIS OF THE PROVINCIAL DIVORCE RATE IN CANADA, 1971

VARIABLES	COEFFICIENTS			
	r	B	b	t
Age	.29	.25	2.36153	6.14*
Sex	-.03	-.45	-3.73311	7.03*
% Urban	.44	.12	.03815	2.39**
% Labor Force	.36	.51	.08726	6.82*
IM	.57	.45	.35653	5.45*
% University Ed.	.40	.12	.07807	2.03**
Ontario	.09	-.20	-3.03049	3.08*
Man.-Sask.	-.03	.09	.99475	2.20**
Alberta	.36	.21	3.16411	4.59*
British Columbia	.32	.17	2.50827	3.49*
Yukon-N.W.T.	.11	.31	3.41110	6.04*
Constant			-5.29859	
R^2			.79	
N			192	

* $p<.01$
** $p<.05$

TABLE 6. MULTIPLE STEPWISE REGRESSION ANALYSIS OF THE PROVINCIAL DIVORCE RATE IN CANADA, 1978

VARIABLES	COEFFICIENTS			
	r	B	b	t
Age	.25	.14	1.91747	.65*
Sex	-.01	-.33	-3.95647	5.68*
% Labor Force	.43	.41	.11354	6.28*
IM	.68	.36	.54586	4.89*
% University Ed.	.40	.71	.87659	7.45*
Ontario	.06	-.17	-3.61902	4.11*
Man.-Sask.	-.08	-.19	-2.99166	4.10*
Alberta	.22	-.14	-2.94519	2.90**
British Columbia	.25	-.11	-2.45156	2.50**
Yukon-N.W.T.	.04	.52	8.40020	8.00*
Constant			-7.88568	
R^2			.80	
N			192	

* $p<.01$
** $p<.05$

with the exception of Ontario and Yukon-Northwest Territories, show a reversal in their impacts on the rate of family dissolvement. This is unexpected given the general knowledge of the Atlantic locality as being relatively more traditional than most of the rest of Canada (Trovato and Halli, 1983). After a careful reinspection of Table 6, it was decided to remove Nova Scotia from the comparison region, as this province in 1978 had a relatively higher divorce rate than most other provinces in Canada, including the rest of the Atlantic region itself; and as shown in Table 2, controlling for all variables simultaneously actually places this province's 1978 predicted rate above all other provinces. For this reason, it was decided to treat Nova Scotia as a separate region, and the regression analysis was repeated for 1978. Table 7 displays the results. The social demographic and migration variables do not differ substantively in their relationship with the divorce rate from those observed earlier, but the regional effects change considerably: Ontario, Alberta, and Manitoba-Saskatchewan and British Columbia are not statistically significant; Quebec now reflects a negative impact on the criterion variable, while Yukon-Northwest Territories persists in demonstrating a positive main effect. As expected, Nova Scotia has a direct effect on the divorce rate in relation to the rest of the Atlantic Region. These findings, along with the Nova Scotia effect, tend to question the notion of traditionalism as being a pervasive feature of the Atlantic locality. Since the early seventies the region as a whole has been experiencing significant gains in divorce, and although at present its level of divorce is still below the national average, the observed trend suggests a tendency toward an eventual homogenization of rates with the rest of the country. This claim is further supported by the finding that between 1971 and 1978 the independent effects of region have converged for Ontario, Manitoba-Saskatchewan, Alberta and British Columbia vis-a-vis the

Atlantic region (consisting of Newfoundland, Prince Edward Island and New Brunswick). The fact that Yukon-Northwest Territories has been consistent in its effect on divorce over time, and that Nova Scotia has recently shown a similar effect in recent years is indicative of the possibility that in the near future, the major high divorce regions of Canada may be Yukon-Northwest Territories and Nova Scotia.[3] Newfoundland, Prince Edward Island and New Brunswick will probably continue to represent the low divorce belt of Canada for some time, while the remainirg provinces will likely converge to the national level.

The observed above average divorce levels of Alberta and British Columbia are largely explainable by their social demographic conditions and their position as two key attraction poles for migrants. Both provinces have been experiencing massive social change particularly in the last 15 years. Alberta has undergone an economic "boom" period from the early 1970s to the early part of the 1980s. This situation saw a tremendous number of people enter the province from virtually all other areas of Canada. The rapid social change associated with the "boom" was a determinant of significant levels of social disorganization and large migration flows simultaneously. It is not surprising, therefore, that these two provinces demonstrate high rates of family dissolution. This trend is bound to proceed, but if social and economic conditions homogenize across the nation, divorce rates will begin to converge, with some areas resisting this trend somewhat (e.g. Newfoundland, Prince Edward Island, and New Brunswick), and others continuing to lead (e.g., Nova Scotia and Yukon-Northwest Territories) in the rate of marital divorce in Canada. It would seem, therefore, that if wide variations in divorce continue to persist across regions, two significant determinants will be differences in social demographic

TABLE 7. REVISED MULTIPLE STEPWISE REGRESSION ANALYSIS OF THE PROVINCIAL DIVORCE RATE IN CANADA, 1978

VARIABLES	COEFFICIENTS			
	r	B	b	t
Age	.25	.15	2.06661	4.23*
Sex	-.01	-.33	-4.00538	6.24*
% Labor Force	.43	.42	.11783	7.16*
IM	.68	.42	.64472	8.20*
% University Ed.	.40	.48	.58754	6.40*
Quebec	.03	.07	1.50684	2.03**
Yukon-N.W.T.	.04	.51	8.12853	8.58*
Nova Scotia	.13	.26	5.55414	7.39*
Constant		-7.79101		
R^2		.80		
N		192		

* $p<.01$
** $p<.05$

variables, and the rate of social change, of which inmigration is an index. A decomposition analysis (not included, but available on request), of the change in the national divorce rate between 1971 and 1981 shows that provincial differences in the level of inmigration account for a 2 percent decrement in the divorce rate over time (due to a decline in the level of interprovincial migration between 1971 and 1978), while the interaction of migration with time is responsible for a 57 percent increase in the national divorce rate. Residual factors account for 45 percent of the change. Thus, the time and migration variables in interaction are more powerful determinants of divorce across Canada than either factor considered by itself.

Discussion and Conclusions

What accounts for significant differences in marital breakdown across Canada are variations in migration flows to the various regions as well as differentials in compositional variables such as age, sex, labor force participation and proportion urban. This research demonstrates that region per se has an additional role in the observed regional pattern of differences in the rate of family dissolution. However, the patterns detected suggest that for some geographic localities there may be a regional culture that predisposes its populace to values and normative orientations that are conducive to either a widespread general acceptance of divorce on the one hand, or an orientation that is more conforming with lower levels of acceptance of the idea of legal separation through divorce. The two main areas that may be representative of this contrast are Yukon-Northwest Territories and Nova Scotia on the one hand, and the three provinces of the Atlantic Region: (Newfoundland, Prince Edward Island and New Brunswick) on the other. More study is needed to untangle the pertinent bases of this relationship.

Concerning the finding that in 1978, the regions that initially displayed positive effects in 1971, actually failed to demonstrate net impacts on divorce vis-a-vis the Atlantic region (Newfoundland, Prince Edward Island and New Brunswick), may be a reflection of a general levelling of the acceptance of the idea of divorce in Canada. That is, a process of opening and closing, in Klapp's (1978) terms, may be occurring across the various regions of the nation. Perhaps those areas that have shared a typically high divorce rate in the past are beginning to experience a reassessment and re-evaluation about the nature of the family and the desire for family intactness as opposed to divorce. Places that have shown relatively low rates of family dissolution may be witnessing an opening phenomenon; such systems may be more accepting of the idea of legal dissolution of marriage following a historical context of normative orientations against it. Klapp (1978:ix) provides his explanation of opening and closing in society:

> "...Closing responses are reflected by nostalgia ... concern about pollution, suspicion of conspiracies, wanting to close boundaries or emphasize ethnic roots ... On the other hand, opening is illustrated by modernism, expansionism, adventurism, ... try things, open doors, let oneself go."

The society that has been experiencing a prolonged stage of "opening" will eventually begin to "close"; correspondingly, a system that has been "closed" for a period of time will soon "open". Perhaps this applies to changes in the ideal aspects of regional cultures in Canada. From an empirical point of view, it would be fruitful to see how attitudes and beliefs about divorce and other aspects of marriage and the family have been converging among regions in Canada. Support for the opening-closing thesis would emerge if, for example, provinces such as Newfoundland and Prince Edward Island become more tolerant attitudinally, over time, for the idea of divorce and alternative living arrangements (e.g. cohabitation and common-law unions), while provinces such as

British Columbia, Alberta and Ontario, which have a history of relatively high divorce rates, demonstrate an opposite response pattern.

The migration effect detected in this paper is explained as representing the influence of a third factor, rapid social change. It was argued that interprovince inmigration would show a positive main effect on divorce because it encompasses the effect of rapid change in the receiving areas. For migrants themselves, it is known that the migration process is stressful, particularly for families in a new environment that is characterized by rapid economic expansion and social change. In such places the juxtaposition of old and new values about significant aspects of social and private life tend to manifest itself in an increasing rate of family dissolution. Consequently, the incidence of anomie and social disorganization is higher in such areas than in regions that do not attract a large number of migrants. Future studies ought to untangle the relative contribution of the migrants themselves to the increasing divorce rate in the receiving community from the general effects of rapid change, which tend to be more pervasive throughout the host population as a whole.

Further inquiry concerning this specific aspect of the problem being discussed is necessary at both the macro and micro levels of analysis. At the individual level of inquiry it is necessary to explore the relationship between migration and life cycle events such as marriage, divorce and remarriage in the context of changes in residency and geographic mobility. A final note of concern is the notion that marital breakup is both a cause and a consequence of migration. Results from a regression analysis of the data used in this study supports the hypothesis that divorce is often a determinant of inmigration and also outmigration at the provincial level. Appendices 2 and 3 provide the regression equations. A full elaboration of this relationship is not possible

here given space constraints; however, these data are included to stimulate further work in a specific dimension of the divorce-migration relationship that has generally received limited attention.

In conclusion, the present research has provided further support for the relevance of internal migration in determining a province's divorce rate. Furthermore, it introduced the notion that region may have a significant role in its divorce experience. It was hypothesized that the underlying explanation for a region effect rests with features of regional culture such as traditionalism and familism. In this regard, the findings of this study can be related to Pang and Hanson's (1968) proposition that subculture is a relevant component of a region's history concerning divorce. The migration effects conform to previous work in this area of study, namely Fenelon (1971), and more recently, for Canada, Makabe (1980). The final concern of the study demonstrated the need to consider divorce as being a cause and a consequence of migration. Future analyses ought to take this fact into account. The inclusion of recursive path analytic models to ascertain the simultaneous effects of region, migration (in and out), and divorce would be particularly useful.

FOOTNOTES

1 The probability of divorce among the currently married is a measure developed by Pressat (1974). It is derived by distributing all of the divorces in a current year on the basis of their durations of marriage. For each duration there is a corresponding number of marriages that are assumed to have given rise to the current divorces. Each duration-specific number of divorces is multiplied by the corresponding marriages and then divided by 1000. Summing over all durations produces the denominator for computing the probability of divorce. Thus, the total number of divorces is divided by the above sum to derive a probability of divorce among the currently married. I am grateful to Dhruva Nagnur of Statistics Canada for having provided the computer program for this aspect of the analysis.

2 The data set for this analysis was compiled using two major sources of data, the 1971 and 1976 Public Use Sample Tapes of the 1971 and 1976 Censuses of Canada, and Official Statistics Canada publications.

First, the 1971 Sample Tapes, 1/100 individual file, was used to obtain a province-age-sex specific breakdown of summary measures for the variables in the analysis. The Sample Tapes do not contain any information for Prince Edward Island, Yukon nor Northwest Territories. Therefore, the corresponding data were obtained from published census reports for these three provinces.

The same procedures were adopted for the 1976 data. The 1976 Public Use Sample Tapes, 1/100 individual file, is based on a mini-census and therefore contains a limited number of social/demographic variables. For example, income and religion were not available. After insepcting the

published data for these two variables, it was decided to not include income due to the fact that the age classification system in the official Statistics Canada reports did not correspond to the age breakdown adopted in this study. Religion was included however, as the data were classified in a more suitable fashion. As in the previous case, the appropriate data for the three provinces, Prince Edward Island, Yukon and Northwest Territories were not available in the 1976 Public Use Sample Tapes. Therefore, we relied on published census sources. The list of sources for the data are listed below.

The 1971 average incomes by sex and age for Prince Edward Island, Yukon and Northwest Territories were estimated from grouped income data in the published census of 1971: Census of Canada, 1971, Volume 3, part 6 (Catalogue No. 9-4763), Tables 10-1 and 10-25.

The proportion of Roman Catholic population by age and sex, for the same provinces above, were taken from data in: Census of Canada, Volume 1, Part 4, Table 8-1. For 1976, the necessary proportions were estimated by interpolation by using the 1971 figures and proportions calculated using published census data: 1981 Census of Canada, Volume 1, (Catalogue 92-912), Table 1-1. Because the 1976 Public Use Sample Tapes do not contain information on religion, age-sex province specific proportion Roman Catholic had to be similarly interpolated for the remaining nine provinces.

The age-sex specific proportion university educated for Prince Edward Island, Yukon, and Northwest Territories were taken from data in: 1971 Census of Canada, Volume 1, part 2, Table 36-1; 1981 Census of Canada, Volume 1 (Catalogue 92-914), Table 3-1. The 1976 proportions were interpolated using the computed 1971 and 1981 proportions.

Age-sex specific full-time labor force participation rates for Prince Edward Island, Yukon, and Northwest Territories were taken from: 1971 Census of Canada, Volume 3, Part 1, Table 9; 1976 Census of Canada, Volume 5, Table 5.

Age-sex specific proportion urban for the three provinces above were estimated using the following sources: 1971 Census of Canada, Volume 1, part 2, table 8-1; 1981 Census of Canada, Volume 1, (Catalogue No. 92-901), Table 6-1, and Tables 1-1; 1-3.

Intraprovincial, interprovincial and international migration rates by age and sex for Prince Edward Island, Yukon, and Northwest Territories, for the two census periods, 1966-71 and 1971-76, were calculated from the following sources: 1971 Census of Canada, Volume 1, Part 2, Bulletin 1.2.7 (November, 1974), Tables 31-6; 31-23 and 31-25; 1976 Census of Canada, Volume 2, Part 2, Bulletin 2.9, Tables 36-4, 36-5; 36-8; 36-25; 36-27 and 36-28. 1971 Census of Canada, "Internal Migration", Volume 1, Part 2 (Catalogue 92-719), Bulletin 1.2-7 (November, 1974), Table 31; also Tables 7-1, 27-3; 7-9. 1976 Census of Canada, Volume 2, Part 2, Table 36-1. Statistics Canada Special Statistics Field, Demography Division, International and Interprovincial Migration in Canada, 1978-79, (Catalogue 91-208), 1980 (May), Table 11.

The computations for the three migration measures for the nine provinces (except Prince Edward Island, Yukon, and Northwest Territories) are based on 1971 and 1976 censuses Public Use Sample Tapes data, 1/100 individual file. The basis for the computations is the five year mobility question in the census; it compares a respondent's place of residence five years previous to the time of the census, thus allowing for classifying persons as to whether they changed residence with regard to a change within

the same province, a different province, or entered the country within the given period.

Age-sex population distributions by province were taken from: 1971 Census of Canada, Volume 1, Part 2, (Catalogue 92-715), (April 1973), Tables 7-9; 1981 Census of Canada, Volume 1, (Catalogue 92-901), Tables 1-1 and 1-3.

3 A separate regression equation, with Yukon and Northwest Territories as separate regions (dummy coded), along with Nova Scotia and the remaining region codes, was computed to determine whether Yukon and Northwest Territories ought to be considered separately. The results showed that both effects are positive and statistically significant. Moreover, the magnitudes of the two effects were virtually identical. Therefore, it was decided to keep both provinces as one region.

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APPENDIX 1. Age-Sex Specific Divorce Rates Per 1000 Married Population of Same Sex and Age, Canada and Provinces, 1970-72 and 1977-79

AGE, SEX AND PERIOD	Can.	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Yukon & N.W.T.
1970-1972														
MALES														
<20	0.44	-	-	0.02	0.55	0.13	0.67	-	0.47	2.76	0.73	-	-	-
20-24	5.17	1.03	5.68	1.40	2.98	2.29	5.56	5.92	5.63	12.88	9.34	6.47	2.85	4.23
25-29	9.22	2.37	5.04	5.78	6.11	5.13	10.71	10.37	8.06	17.22	15.91	18.45	5.48	10.54
30-34	8.51	2.80	5.08	6.94	5.27	6.47	10.83	9.44	6.71	15.14	15.18	12.15	6.11	8.52
35-39	6.89	1.95	2.82	5.89	5.14	6.26	8.78	8.53	5.32	11.98	12.17	10.15	3.56	5.93
40-44	6.07	1.90	3.81	4.93	3.65	5.48	7.84	6.61	4.06	10.25	10.53	9.42	4.34	6.55
45-49	5.10	1.41	3.93	3.80	3.06	4.52	6.72	5.88	3.22	8.67	9.72	6.92	3.30	4.69
50+	3.05	0.61	0.67	1.67	1.54	2.17	3.54	3.10	2.14	4.98	5.13	8.51	2.55	4.98
TOTAL	5.55	1.49	2.77	2.04	3.33	4.24	6.83	5.97	3.97	10.11	9.59	10.83	4.08	6.75
FEMALES														
<20	1.59	0.25	-	0.11	1.16	1.39	1.93	1.86	1.84	7.33	3.20	-	-	-
20-24	6.96	1.64	5.17	3.21	4.12	3.44	7.49	7.20	6.48	15.80	13.50	11.27	4.29	7.02
25-29	9.61	2.78	5.89	7.52	6.31	6.13	11.75	11.19	8.18	16.88	16.30	17.11	5.25	9.76
30-34	7.69	2.10	3.98	7.09	4.98	6.66	10.11	9.22	6.36	13.03	13.74	10.81	4.14	6.66
35-39	6.37	1.03	2.78	5.21	4.30	5.67	8.40	6.87	4.58	10.84	11.37	12.04	3.37	6.36
40-44	6.39	1.83	3.62	4.27	3.43	4.88	7.30	6.17	3.65	9.60	10.50	14.33	7.15	9.99
45-49	4.64	1.17	2.26	3.32	3.23	3.85	5.95	4.86	2.89	7.97	8.63	9.51	2.06	5.18
50+	2.86	0.36	2.53	2.72	1.13	1.79	2.68	2.57	1.64	3.89	4.17	7.17	3.70	5.16
TOTAL	5.76	1.50	2.77	2.06	3.34	4.23	6.82	5.96	3.98	10.15	9.66	11.43	4.19	7.00
1977-1979														
MALES														
<20	1.82	0.83	-	5.55	1.11	0.93	1.93	0.95	1.48	6.04	3.07	-	-	-
20-24	9.38	3.18	4.11	4.88	6.06	7.93	10.68	9.50	7.93	17.54	14.09	18.87	7.77	11.47
25-29	15.05	6.50	9.40	18.00	12.08	13.44	18.19	16.67	12.29	22.93	23.66	13.32	14.09	13.80
30-34	15.27	5.79	7.56	17.68	11.80	15.53	17.33	16.24	11.46	20.73	23.61	19.61	15.94	13.37
35-39	12.74	5.36	8.44	14.97	9.93	14.66	14.00	12.02	9.68	16.59	18.90	16.17	12.11	13.69
40-44	9.66	3.67	7.04	11.63	8.35	12.16	10.95	9.15	7.49	13.45	15.76	9.98	6.29	7.61
45-49	8.34	3.45	4.02	9.12	6.35	10.00	8.81	7.76	6.45	10.84	12.25	13.99	7.08	9.73
50+	3.61	1.23	1.50	6.65	2.40	4.54	3.72	3.20	2.57	4.73	5.21	5.45	2.16	3.33
TOTAL	9.48	3.70	5.03	9.45	6.95	9.42	10.03	8.73	6.53	13.33	13.52	12.90	9.36	10.70
FEMALES														
<20	4.18	0.79	0.83	7.33	2.56	4.63	4.35	4.89	3.33	9.90	6.51	3.33	1.66	2.22
20-24	12.32	5.25	7.15	16.20	9.61	10.49	13.77	12.57	10.50	21.54	18.39	12.37	9.99	10.92
25-29	17.15	6.64	9.22	30.25	12.30	14.87	18.62	18.06	12.83	22.22	24.66	20.35	15.76	17.48
30-34	14.05	4.94	9.16	15.86	11.29	15.15	15.47	13.64	10.43	17.83	20.96	19.98	13.87	16.32
35-39	10.85	4.70	6.30	13.08	9.12	13.32	12.04	10.35	8.32	14.79	17.37	10.54	10.29	10.77
40-44	8.51	3.79	5.38	11.00	6.95	10.61	9.61	7.57	6.84	11.62	13.13	9.32	6.29	7.37
45-49	6.91	2.29	2.90	7.65	4.42	8.28	7.58	5.91	5.04	9.16	10.27	14.15	5.23	8.48
50+	2.45	0.81	1.00	2.76	1.69	3.81	2.99	2.26	1.86	3.82	4.29	3.33	0.74	1.33
TOTAL	9.55	3.73	5.04	9.45	6.95	9.42	9.93	8.70	6.56	13.32	13.46	13.18	9.13	10.61

[1]The rates were calculated by the formula $1/3(D_{ij}/Hmi) \times 1000$, where D_{ij} = divorces in Age i in year j; Hmi = Mid year population that is married at age i. The rates are multiplied by 1/3 to derive the 3-year averages. The denominators for 1971 are from the 1971 census; those for 1978 are from Statistics Canada estimates.

APPENDIX 2. MULTIPLE STEPWISE REGRESSION ANALYSES FOR FIVE MEASURES OF MIGRATION CANADA, 1971

VARIABLES IN THE EQUATION	MIGRATION MEASURES														
	M1			M2			M3			M123			OUT71-76		
	r	B	t	r	B	t	r	B	t	r	B	t	r	B	t
% University Ed.	.78	.74	16.34												
% Urban	.61	.25	4.94												
$\bar{X}$ Family Income	.14	-.22	5.37												
Alberta	.07	-.08	2.10												
Quebec	.24	.11	2.62												
British Columbia	.29	.10	2.56												
Constant	-2.23277														
R^2	.75														
Ontario				.63	.62	19.32									
Divorce Rate				.57	.35	8.83									
% University Ed.				.33	.53	9.07									
British Columbia				.32	.24	6.90									
Alberta				.26	.16	4.90									
$\bar{X}$ Family Income				.21	-.25	5.23									
Man. - Sask.				-.20	-.09	2.87									
Sex				.02	.11	2.63									
Quebec				-.04	.07	2.21									
Constant				-.77077											
R^2				.80											
% University Ed.							.67	.66	11.87						
Divorce Rate							.63	.47	9.33						
Ontario							.41	.33	9.15						
British Columbia							.38	.16	4.06						
% Labor Force							.21	-.32	4.19						
Sex							.04	.18	2.66						
Constant							-0.14938								
R^2							.76								
% University Ed.										.74	.58	16.24			
% Urban										.71	.17	4.19			
Ontario										.43	.30	8.86			
British Columbia										.36	.19	5.86			
Divorce Rate										.55	.25	6.67			
$\bar{X}$ Family Income										.22	-.19	5.85			
Roman Catholic										-.03	.09	2.76			
Constant										-3.06453					
R^2										.85					
Yukon - N.W.T.													.32	.27	3.06
% University Ed.													.07	.23	2.38
% Urban													-.22	-.27	3.48
Divorce Rate													.23	.24	3.13
Man. - Sask.													.16	.15	2.40
$\bar{X}$ Family Income													-.03	-.46	3.77
% Labor Force													.24	.41	3.17
Constant													6.44015		
R^2													.35		

NOTE: The Outmigration Rate for 1971-76 is:

$$\sum_{\substack{i=1,2 \\ j=1,8 \\ k=1,12}} \left[\frac{O_{71-76}}{(P_{71} + P_{76} / 2)} \right] \times 100$$

WHERE: O_{71-76} is the number of outmigrants from Province K, in age group J, of sex i, during the 1971-76 interval; P_{71} and P_{76} are the age-sex province specific populations.

APPENDIX 3 . MULTIPLE STEPWISE REGRESSION ANALYSES FOR FIVE MEASURES OF MIGRATION, CANADA, 1976

VARIABLES IN THE EQUATION	MIGRATION MEASURES														
	M1			M2			M3			M123			OUT7681		
	r	B	t	r	B	t	r	B	t	r	B	t	r	B	t
% Uinversity Ed.	.64	.97	9.30												
Divorce Rate	.5?	.20	3.00												
Age	-.15	-.26	-6.08												
Quebec	.26	.17	4.04												
Man. - Sask.	-.08	-.26	-5.53												
Yukon - N.W.T.	-.27	.35	4.23												
British Columbia	.20	-.19	-3.91												
Alberta	.11	-.15	-3.37												
Sex	-.06	-.09	-2.28												
Constant	0.36420														
R²	.71														
Divorce Rate				.68	.34	5.94									
% University Ed.				.66	.46	4.80									
Alberta				.51	.36	9.16									
Man. - Sask.				-.17	-.13	-2.90									
Age				-.02	-.13	-3.61									
Yukon - N.W.T.				-.26	.14	1.95									
British Columbia				.35	.16	3.58									
Ontario				.20	.14	3.50									
Quebec				.08	.10	2.80									
Constant				-0.77077											
R²				.80											
Divorce Rate							.69	.54	13.06						
Ontario							.49	.45	12.07						
British Columbia							.37	.23	5.83						
% University Ed.							.59	.15	3.40						
Constant							-.64493								
R²							.76								
% University Ed.										.71	.76	9.24			
Divorce Rate										.69	.33	5.89			
Man. - Sask.										-.13	-.21	-5.55			
Age										-.07	-.19	-5.52			
Yukon - N.W.T.										-.27	.26	3.85			
Ontario										.30	.13	3.71			
Quebec										.16	.13	3.69			
Constant										-.91011					
R²										.80					
Yukon - N.W.T.													.66	.63	13.13
Age													-.38	-.38	-8.19
% Urban													-.30	-.12	-2.46
Constant													16.74897		
R²													.5983		

NOTE: The Outmigration Rate for 1976-81 was estimated from published outmigration figures for 1978-79 by Statistics Canada(Footnote 2). In order to obtain a five year rate, the 1978-79 figures were multiplied by 5 and divided by 2.5. This assumes no change in the volume of outmigration during the interval, from that of the 1978-79 actual. M123 is an average of M1, M2 and M3 combined.

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